

COBRA OIL AND GAS CORPORATION
McMillan 3-9 No. 1 Oil and Gas Production Facility
Escambia County, AL
Facility No.: 502-0075

STATEMENT OF BASIS

The proposed Title V Major Source Operating Permit (MSOP) Renewal is issued under the provisions of ADEM Admin. Code R. 335-3-16. The above named applicant has requested authorization to perform the work or operate the facility shown on the application and drawings, plans, and other documents attached hereto or on file with the Air Division of Alabama Department of Environmental Management, in accordance with the terms and conditions of this permit.

Cobra Oil and Gas Corporation was issued its existing MSOP on October 12, 2005 with an expiration date of January 3, 2010. Per ADEM Rule 335-3-16-.12(2), an application for permit renewal shall be submitted at least six (6) months, but not more than eighteen (18) months, before the date of expiration of the permit. A completed permit application for the permit renewal was received at the Department on July 10, 2009. The proposed MSOP will expire on January 2, 2015.

The facility has requested no modifications to its existing MSOP. The renewal will address the facility's applicability to the newly promulgated area source regulation for 40 CFR 63 Subpart HH.

The McMillan 3-9 No. 1 Oil and Gas Production Facility (McMillan well) is currently equipped with the following units:

- 0.5 MMBtu/hr Line Heater
- 0.5 MMBtu/hr Vertical Heater Treater
- High and Low Pressure Separators
- Flare Gas Scrubber
- Closed Vent System and Process Flare
- Storage Tanks with closed vent system to route vapors to the flare
 - Two (2) 16,800 gallon Crude Oil Storage Tanks
 - One (1) 16,800 gallon Salt Water Storage Tank
 - One (1) 16,800 gallon Fresh Water Storage Tank

Process Description

The well stream from the McMillan well consists of an emulsion containing associated sour gas, condensate and saltwater. Upon leaving the well head, the well stream is sent through the line heater, for heating, then through the high pressure and low pressure separators. Gas from the separators is routed to the process flare for burning. From the low pressure separator, the well stream is sent through a heater treater where the stream is separated into a gas stream, condensate stream, and salt water stream. The condensate and salt water

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streams are sent to their respective storage tanks until disposed of or sold. The sour gas stream from the heater treater is routed through a flare scrubber, to remove any remaining liquids from the gas, then on to the flare for burning. Vapors from the storage tanks are routed through a vent line to the flare also for burning.

The McMillan well may be subject to the following regulations:

Applicability:

- ADEM Admin. Code R. 335-3-5-.03(1), "*Petroleum Production*" applies to the control of sulfur compound emissions from each petroleum production facility that handles gas or refinery gas that contains more than 0.10 grains of hydrogen sulfide (H_2S) per standard cubic foot (scf). The McMillan well handles sour gas that contains 0.10 grain of H_2S /scf or more; therefore, the facility is subject to the applicable requirements of this regulation.
- ADEM Admin. Code R. 335-3-14-.04 "*Prevention of Significant Deterioration (PSD) Permitting*". The McMillan well would not be subject to this regulation since the facility requested to be a minor source of criteria pollutants with respect to PSD regulations by accepting a 240 Ton per year (TPY) limit for criteria pollutants. A major source of criteria pollutants, for applicability to PSD regulations, requires that the emissions from each pollutant be greater than 250 TPY for this type of facility.
- ADEM Admin. Code R. 335-3-16-.03, "*Major Source Operating Permits*". The McMillan well has been deemed a major source of criteria pollutants. The sulfur dioxide (SO_2) emissions for the facility, primarily from the flare, have the potential to exceed the 100 tons per year threshold for criteria pollutants; therefore, the facility is subject to the applicable requirements of this regulation for criteria pollutants. Since the hazardous air pollutants (HAPs) emissions, are not expected to exceed the 10 TPY threshold for a single HAPs or the 25 TPY threshold for a combination of HAPs, the facility would not be classified as a major source of HAPs emissions.

Emission Standards:

- In order to meet the applicability requirements of ADEM Admin. Code R. 335-3-5-.03(2), all process gas containing greater than the 0.10 grains of H_2S /scf shall be burned to the extent that the ground level concentrations of hydrogen sulfide are less than twenty (20) parts per billion beyond plant property limits, average over a thirty (30) minute period.

FACILITY WIDE EMISSIONS

- According to ADEM Admin. Code R. 335-3-5-.03(3), SO₂ emissions in Category II counties are unlimited provided that the available sulfur is less than 10 long tons per day (LTons/day). The McMillan well is located in Escambia County which is classified as a Category II county. Based on emissions obtained from Title V fees from 2005 through 2008, the facility is not expected to exceed 10 LTons/day of available sulfur; therefore, there is no limit for SO₂ emissions. However, since the facility requested to be a minor source with respect to PSD, their facility-wide SO₂ emissions must remain below 240 Tons per 12 consecutive months.
- Each process gas stream that has to be vented to the atmosphere should be first captured and sent to the process flare to be burned. Except for a period not to exceed 15 continuous minutes while depressurizing and/or emptying equipment and when reduced pressure will not allow flow of gas to a control device, venting to the atmosphere is not allowed.

Compliance and Performance Test Methods and Procedures:

- Compliance with the requirement to burn gas containing 0.10 grains of H₂S/scf is demonstrated by burning the sour gas from the heater treater and high pressure separator as well as the vapors from the storage tanks in the process flare.
- Compliance with the requirement to maintain the facility-wide SO₂ emissions at less than 240 Tons per 12 consecutive months is met by performing monthly and 12 month rolling average calculations to determine the emissions.

Emission Monitoring:

- Monitoring is met by maintaining the process flare as required by the permit.

Recordkeeping and Reporting Requirements:

- The facility's record keeping and reporting requirements are met by performing monthly calculations for the process flare.

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Emission:

Facility wide emissions for the McMillan well are given below. These are actual emissions obtained from 2005-2008 Title V Fees.

Actual SO ₂ Emissions Reported for McMillan Well (TPY)				
Pollutant	2005	2006	2007	2008
SO ₂	175	114	67	99

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PROCESS HEATERS AND BOILER EMISSIONS

Emission Point	Description	Pollutant	Emission Limit	Regulations
Individual Sources:				
	0.5 MMBtu/hr Line Heater	Opacity	<=20 %	Rule 335-3-4-.01(1)a
			<40%	Rule 335-3-4-.01(1)(b)
		SO ₂	4.0 lb/MMBtu Heat Input	Rule 335-3-5-.01(1)(b)
	0.5 MMBtu/hr Vertical Heater Treater	Opacity	<=20 %	Rule 335-3-4-.01(1)a
			<40%	Rule 335-3-4-.01(1)(b)
		SO ₂	4.0 lb/MMBtu Heat Input	Rule 335-3-5-.01(1)(b)

Both the line heater and the heater treater use natural gas as their primary fuel source with propane used as a backup. Since the heaters' maximum heat input is 500,000 Btu/hr, they use natural gas as their fuel source, and they are not subject to NSPS, NESHAP, or MACT regulations, these units are considered insignificant activities. Insignificant activities are required to be listed in the permit application only. The SO₂ emissions from the natural gas burning heaters are not expected to exceed the 4.0 lb/MMBtu heat input requirement for Category II Counties. Therefore, no testing, monitoring, or recordkeeping is required for these units. Since the heaters burn natural gas, which should contain a negligible amount of particulate matter, no opacity monitoring should be required as well.

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PROCESS FLARE EMISSIONS

The process flare is used as a control device to maintain the offsite H₂S concentration.

Emission Point	Description	Pollutant	Emission Limit	Regulations
Individual Sources:				
	Process Flare	Opacity	<=20 % <40%	Rule 335-3-4-.01(1)(a) Rule 335-3-4-.01(1)(b)
		H ₂ S	No venting to atmosphere	Rule 335-3-5-.03(2)
		H ₂ S	20 ppbv of H ₂ S offsite	Rule 335-3-5-.03(2)
		SO ₂	Unlimited if available sulfur less than or equal to 10 LTons/Day* *Facility wide emissions not to exceed 240 TPY	Rule 335-3-5-.03(3)

Applicability:

- The process flare is subject to the applicable requirements of ADEM Admin. Code R. 335-3-4-.01, "*Visible Emissions*" for Control of Particulate Emissions. Since sour gas is continuously routed to the process flare for combustion prior to being released to the atmosphere, the facility would be subject to this regulation.
- The process flare is required to meet the applicable requirements of ADEM Admin. Code R. 335-3-5-.03(1), "*Petroleum Production*". This unit is used to demonstrate compliance with this regulation by burning the process gas streams containing 0.10 grains of H₂S/scf prior to its release into the atmosphere.
- The facility has requested an emission limitation which will allow the process flare to be a synthetic minor source when determining applicability to ADEM Admin. Code R. 335-3-14-.04, "*Prevention of Significant Deterioration (PSD) Permitting*".
- ADEM Admin. Code R. 335-3-16-.03, "*Major Source Operating Permits*". Since the potential emissions from the process flare are expected to exceed the 100 TPY major source threshold for criteria pollutants, this unit is subject to the applicable requirements of this regulation.
- The process flare is subject to 40 CFR 64, "*Compliance Assurance Monitoring (CAM)*". The following three criteria have to be met in order for this unit to be subject to CAM regulations: the unit has to be subject to an emission limit or standard, a control device has to be used to achieve compliance with the

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emissions limit or standard, and pre-controlled emissions have to be greater than 100 TPY for criteria pollutants, 10 TPY for a single hazardous air pollutant (HAP) or 25 TPY for a combination of HAPs.

CAM regulation allows for an emission limitation to be expressed in the form of a work practice, process parameter, or other form of specific design. The process flare is used as a control device to comply with the work practice requirement to burn process gas containing 0.10 grains of H₂S/scf. The pre-controlled SO₂ emissions from the process flare have the potential to exceed the 100 TPY major source threshold for criteria pollutants. Since the process flare meets all three criteria for applicability to CAM regulations, the unit is subject to these regulations.

Emission Standards:

- The process flare is required to meet the 20% and 40% opacity requirements as specified in ADEM Admin. Code R. 335-3-4-.01(1) (a) and (b).
- Each process gas stream containing 0.10 grains of H₂S/scf that can be vented to the atmosphere shall be routed to the process flare for combustion. Except when being depressurized and/or emptied, venting to the atmosphere shall not exceed 15 continuous minutes.
- Each process gas stream shall be burned to the extent that the ground level concentration of H₂S are less than 20 ppb beyond plant property limits, averaged over 30 minutes as required by ADEM Admin. Code R. 335-3-5-.03(2).
- The sulfur dioxide emissions from the process flare shall not exceed 240 Tons per 12 consecutive months in order for the unit to be a minor source with respect to PSD regulations.

Compliance and Performance Test Methods and Procedures:

- Compliance with the opacity standards shall be met by conducting a visible emissions observations of the emergency flaring when visible emission are observed from the process flare as specified in the opacity monitoring section for the process flare.
- The H₂S content of the process gas streams shall be tested at a frequency of no less than once each month. At a frequency of no less than once each twelve months, the process gas stream shall be tested for its Btu heat content, volatile organic compound content (VOC) and molecular weight. The results of these

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tests are used to calculate the emissions from the process flare.

- Compliance with the requirement to burn process gas containing 0.10 grains of H₂S/scf that can be sent to the process flare, shall be demonstrated daily by detecting the presence of a flame or spark at the flare tip as specified in the monitoring section for the process flare.
- Compliance with the requirement to burn process gas to the extent that the offsite concentration does not exceed 20 ppbv shall be demonstrated by not allowing the H₂S feedrate to the process flare to exceed 500 lb/hr.

Emission Monitoring:

- Compliance with the emissions standards for the process flare can be met by meeting the CAM and Periodic Monitoring for the process flare found in Table 1 and the Opacity Monitoring found in Table 2.
- Emission monitoring is also met by maintaining records, as required in the recordkeeping and reporting section, for the process flare.

Recordkeeping and Reporting Requirements:

- The following monthly records shall be maintained:

Volume of Gas Burned in Flare (Mscf/Month)

Stream Heat Input (MMBtu/Month)

Stream H₂S (Lbs/Month)

Number of Hours Flare Operated (Hours/Month)

H₂S Feedrate to the Flare (Lbs/Hour)

SO₂ Emissions from Flare (Lbs/Month, Tons/Month, Tons/12 Consecutive Months)

NO_x, CO, and VOC emissions would be calculated for the purpose of determining Title V fees.

Provided that visible emissions have been observed from the process flare, records of the visible emissions observation as specified in Table 2 shall be maintained.

Date, starting time, and duration of each deviation or exceedance of emission

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standards along with the cause and corrective actions taken shall be maintained.

- A Periodic Monitoring Report (PMR) that identifies each incidence of a deviation from a permit term or condition, including those that occur during startups and shutdowns shall be prepared and submitted to the Department.
 - The PMR report shall be submitted semi-annually on calendar basis according to the following reporting schedule:

Reporting Period

Submittal Date

January 1st through June 31st

July 31st

July 1st through December 31st

January 31st

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Table 1: Periodic Monitoring and CAM for Process Flare

Monitoring approach:	Periodic Monitoring	Compliance Assurance Monitoring
I. Indicator	H₂S feed rate	Operate process flare with a flame or spark present at all times when a process gas stream may be sent to it.
A. Measurement approach	Inlet feed volume shall be monitored with a system capable of measuring and recording the flow rate and/or the parameters utilized for flow rate calculation or estimated utilizing material balances, computer simulations, special testing and etc	The flare tip shall be equipped either with a continuous sparking flame igniter that is monitored by an amp meter or an equivalent device or by visual observation OR Equipped with a continuously burning pilot light that is monitored with either a thermocouple or an equivalent device or by visual observation
II. Indicator range	H₂S feed rate of less than or equal to 500 Lbs/Hr A deviation is defined as anytime the daily H ₂ S feed rate is greater than 500 Lbs/Hr A deviation triggers an immediate inspection, corrective action, and reporting within 48 hours or two work days	Presence of a flame or spark at flare tip A deviation is defined as when there was no spark or flame present at the flare tip when a process gas stream could be vented to it A deviation triggers an immediate inspection, corrective action, and reporting within 48 hours or two work days
A. QIP threshold	Not applicable	If more than 6 deviations occur during any semi-annual reporting period, a Quality Improvement Plan shall be developed and implemented
III. Performance criteria		
A. Data representiveness	Each volume monitor shall be located upstream of the process flare and shall consist of a single device that monitors all streams or multiple devices that monitor individual or multiple streams The volume sensor shall be accurate to within 2% of span or 5% of design flow rate The sample point for H ₂ S content shall be located downstream of where the various gas processing streams combine prior to entry into the thermal oxidizer and the process flare	Each flame igniter or flame monitor shall be located at the flare tip and focused on the area where gas exits the flare tip Visual observations shall be made from the location that provides the best view of the flare tip and/or flare pilot lights or flare igniter
B. Verification of operational status	Not applicable	Not applicable

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Monitoring approach:	Periodic Monitoring	Compliance Assurance Monitoring
<i>C. QA/QC practices & criteria</i>	<p>Each volume monitor shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide adequate assurance that the device is calibrated accurately, or at least annually whichever is more frequent.</p> <p>If the monitor fails its calibration tests, the monitor shall be taken out of service until repairs and/or replacements are made and a new calibration test is undertaken and passed.</p>	<p>Each flame igniter or flame monitor shall be maintained and calibrated in accordance with the manufacturer's specifications, other written procedures that provide adequate assurance that the device is properly maintained and calibrated accurately, or at least annually whichever is more frequent</p> <p>Repairs and/or replacements shall be made immediately when non-functioning or damaged parts are found</p> <p>Flame igniter arc length shall not exceed 10% of arc interval and shall have an arcing frequency of no greater than once every 3 seconds</p>
<i>D. Monitoring frequency</i>	<p>Inlet volume measured continuously.</p> <p>Inlet feed H₂S content sample obtained and analyzed no less than once each six (6) months.</p>	<p>Pilot flame shall be monitored either continuously with a thermocouple or by performing a daily visual inspection of the flare</p> <p>Flame igniter - arcing frequency shall be monitored either continuously with an amp meter or by performing a visual inspection of the flare each occurrence when process gas is being sent to it for combustion</p>
<i>Data collection procedure</i>	<p>Calculate &/or record an inlet volume that is representative of the average daily volume entering the process flare.</p> <p>Record daily hours of operation for the process flare.</p> <p>Record each H₂S concentration analysis.</p> <p>Calculate & record H₂S and SO₂ emissions monthly.</p> <p>Record calibration results.</p> <p>Record inspection results, corrective and actions taken.</p>	<p>Record time, date and duration of each incident of when no spark or flame was present at the flare tip when a process gas stream could have been sent to it</p> <p>Record time, date and results of each daily visual inspection of the flare</p> <p>Record time, date and results of each calibration</p> <p>Record corrective actions taken</p>
<i>Averaging period</i>	24 hour	Daily

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PROCESS FLARE EMISSIONS

Table 2: Opacity Monitoring for Process Flare

Monitoring approach:	Periodic Monitoring
I. Indicator	Opacity Monitoring for Process flare
A. Measurement approach	<p>Except during times that the production facility is unmanned by operation personnel or when a process stream is not sent to the flare, a daily visible emissions observation (veo) shall be conducted on the process flare that meets the following requirements.</p> <p style="text-align: center;">Observations shall be conducted during daylight hours</p> <p style="text-align: center;">Duration of each observation shall be: ≥ 15 minutes And ≤ 60 minutes</p> <p style="text-align: center;">Each observation shall be conducted in accordance with either:</p> <p style="text-align: center;">Test Method 9 of 40 CFR Part 60 Or Test Method 22 of 40 CFR Part 60</p> <p>Provided that Test Method 9 is used, the method shall be administered by an individual certified in using that method.</p>
II. Indicator range	<p style="text-align: center;">No more than one 6-min. average opacity reading during any 60 minute period shall exceed 20%. Or No 6-min. average opacity reading during any 60 minute period shall exceed 40%. Or The accumulated time of observed visible emissions shall not exceed 12 minutes.</p> <p>A deviation is defined as anytime the observed 6-minute average opacity exceeds 20% for the 2nd time when utilizing Method 9.</p> <p>A deviation is defined as anytime the observed 6-minute average opacity exceeds 40% for the 1st time when utilizing Method 9.</p> <p>A deviation is defined as anytime visible emissions are observed for greater than 12 minutes during a 60 minute period when utilizing Method 22.</p> <p>A deviation or exceedance triggers continued visible emissions observations at a frequency suitable to defining the emission deviation or exceedance event. One observation shall be undertaken to establish the end of the visible emission deviation event.</p> <p>A deviation or exceedance triggers an inspection, corrective action, and immediate reporting within 48 hours or two work days.</p>
III. Performance criteria	
A. Monitoring frequency	Daily
Data collection procedure	<p>Record: Each occurrence of visible emission observations, or as set by the Department</p> <p>Each 15 second observation reading</p> <p>Record: Each occurrence</p> <p>Time and date of each veo and results of corrective actions, if taken</p>
Averaging period	Not applicable

HAPS EMISSIONS FROM OIL & GAS PRODUCTION FACILITIES 40 CFR 63, SUBPART HH

On June 3, 2007, 40 CFR 63 Subpart HH, “*National Emission Standards for Hazardous Air Pollutants (HAPs) from Oil and Natural Gas Production Facilities*” was promulgated for area sources of HAPs. The McMillan well’s applicability to this newly promulgated regulation is discussed below.

Emission Point	Description	Pollutant	Emission Limit	Regulations
Individual Sources:				
	Affected Sources for Area Sources	HAPs	N/A	N/A

Applicability:

- The McMillan well is not subject to the applicable requirements of 40 CFR 63 Subpart HH, “*National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities*” (40 CFR §63.760 Subpart HH). The facility is defined as an area source of HAPs since it is not expected to meet the definition of a major source of HAPs as defined in 40 CFR §63.761. Also, the McMillan well processes, upgrades, or stores hydrocarbon liquids prior to the point of custody transfer (40 CFR §63.760(a)(1) and (a)(2) Subpart HH).

However, in order for this facility to be subject to the applicable area source requirements of this subpart, it is required to have an affected source. An affected source for area sources of HAPs, would include each tri-ethylene glycol (TEG) dehydration unit located at a facility subject to the requirements of this subpart (40 CFR §63.760(b)(2) Subpart HH). Since the facility is not equipped with an affected source for area sources of HAPs, it would not be subject to the applicable requirements of this subpart (40 CFR §63.760(d) Subpart HH).

Emission Standards:

- There are no applicable emission standards requirements specified for these units.

Compliance and Performance Test Methods and Procedures:

- There are no applicable compliance and performance test methods and procedures specified for these units.

Emission Monitoring:

- There are no applicable monitoring requirements specified for these units.

Recordkeeping and Reporting Requirements:

There are no applicable recordkeeping and reporting requirements specified for these units.

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Recommendations

After reviewing ADEM's Administrative Code of Regulations and the Federal Code of Regulations for newly promulgated and modified regulations, I recommend that Cobra Oil and Gas Corporation be issued a renewal for its McMillan 3-9 No. 1 Oil and Gas Production Well operating under MSOP No.: 502-0075. The facility should be able to meet the requirements of this permit as well as all federal and state requirements.

Harlotte Bolden-Wright
Air Division
Energy Branch
Industrial Minerals Section

August 5, 2009
Draft Date

ATTACHEMENT A:

DRAFT PROVISOS

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MAJOR SOURCE OPERATING PERMIT

PERMITTEE: COBRA OIL AND GAS CORPORATION

FACILITY NAME: MCMILLAN 3-9 NO.1 OIL AND GAS PRODUCTION FACILITY

FACILITY/PERMIT NO.: 502-0075

LOCATION: CASTLEBERRY, ESCAMBIA COUNTY, AL

In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, as amended, Ala. Code 1975, §§22-28-1 to 22-28-23 (2006 Rplc. Vol. and 2007 Cum. Supp.) (the "AAPCA") and the Alabama Environmental Management Act, as amended, Ala. Code 1975, §§22-22A-1 to 22-22A-15, (2006 Rplc. Vol. and 2007 Cum. Supp.) and rules and regulations adopted thereunder, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.

*Pursuant to the **Clean Air Act of 1990**, all conditions of this permit are federally enforceable by EPA, the Alabama Department of Environmental Management, and citizens in general. Those provisions which are not required under the **Clean Air Act of 1990** are considered to be state permit provisions and are not federally enforceable by EPA and citizens in general. Those provisions are contained in separate sections of this permit.*

Issuance Date: DRAFT 8/5/2009

Effective Date: JANUARY 4, 2010

Expiration Date: JANUARY 3, 2015

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General Permit Provisos

Federally Enforceable Provisos	Regulations
<p>1. <u>Transfer</u></p> <p>This permit is not transferable, whether by operation of law or otherwise, either from one location to another, from one piece of equipment to another, or from one person to another, except as provided in Rule 335-3-16-.13(1)(a)5.</p>	<p>Rule 335-3-16-.02(6)</p>
<p>2. <u>Renewals</u></p> <p>An application for permit renewal shall be submitted at least six (6) months, but not more than eighteen (18) months, before the date of expiration of this permit.</p> <p>The source for which this permit is issued shall lose its right to operate upon the expiration of this permit unless a timely and complete renewal application has been submitted within the time constraints listed in the previous paragraph.</p>	<p>Rule 335-3-16-.12(2)</p>
<p>3. <u>Severability Clause</u></p> <p>The provisions of this permit are declared to be severable and if any section, paragraph, subparagraph, subdivision, clause, or phrase of this permit shall be adjudged to be invalid or unconstitutional by any court of competent jurisdiction, the judgment shall not affect, impair, or invalidate the remainder of this permit, but shall be confined in its operation to the section, paragraph, subparagraph, subdivision, clause, or phrase of this permit that shall be directly involved in the controversy in which such judgment shall have been rendered.</p>	<p>Rule 335-3-16-.05(e)</p>
<p>4. <u>Compliance</u></p> <p>(a) The permittee shall comply with all conditions of ADEM Admin. Code 335-3. Noncompliance with this permit will constitute a violation of the Clean Air Act of 1990 and ADEM Admin. Code 335-3 and may result in an enforcement action; including but not limited to, permit termination, revocation and reissuance, or modification; or denial of a permit renewal application by the permittee.</p> <p>(b) The permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.</p>	<p>Rule 335-3-16-.05(f)</p> <p>Rule 335-3-16-.05(g)</p>

General Permit Provisos

Federally Enforceable Provisos	Regulations
<p>5. <u>Termination for Cause</u></p> <p>This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance will not stay any permit condition.</p>	<p>Rule 335-3-16-.05(h)</p>
<p>6. <u>Property Rights</u></p> <p>The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.</p>	<p>Rule 335-3-16-.05(i)</p>
<p>7. <u>Submission of Information</u></p> <p>The permittee must submit to the Department, within 30 days or for such other reasonable time as the Department may set, any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. Upon receiving a specific request, the permittee shall also furnish to the Department copies of records required to be kept by this permit.</p>	<p>Rule 335-3-16-.05(j)</p>
<p>8. <u>Economic Incentives, Marketable Permits, and Emissions Trading</u></p> <p>No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.</p>	<p>Rule 335-3-16-.05(k)</p>
<p>9. <u>Certification of Truth, Accuracy, and Completeness:</u></p> <p>Any application form, report, test data, monitoring data, or compliance certification submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.</p>	<p>Rule 335-3-16-.07(a)</p>
<p>10. <u>Inspection and Entry</u></p> <p>Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized representatives of the Alabama Department of Environmental</p>	<p>Rule 335-3-16-.07(b)</p>

General Permit Provisos

Federally Enforceable Provisos	Regulations
<p>Management and EPA to conduct the following:</p> <ul style="list-style-type: none"> (a) Enter upon the permittee's premises where a source is located or emissions-related activity is conducted, or where records must be kept pursuant to the conditions of this permit; (b) Review and/or copy, at reasonable times, any records that must be kept pursuant to the conditions of this permit; (c) Inspect, at reasonable times, this facility's equipment (including monitoring equipment and air pollution control equipment), practices, or operations regulated or required pursuant to this permit; (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or other applicable requirements. 	
<p>11. <u>Compliance Provisions</u></p> <ul style="list-style-type: none"> (a) The permittee shall continue to comply with the applicable requirements with which the company has certified that it is already in compliance. (b) The permittee shall comply in a timely manner with applicable requirements that become effective during the term of this permit. 	<p>Rule 335-3-16-.07(c)</p>
<p>12. <u>Compliance Certification</u></p> <p>A compliance certification shall be submitted annually by MARCH 4TH.</p> <ul style="list-style-type: none"> (a) The compliance certification shall include the following: <ul style="list-style-type: none"> (1) The identification of each term or condition of this permit that is the basis of the certification; (2) The compliance status; (3) The method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with Rule 335-3-16-.05(c) (Monitoring and Recordkeeping Requirements); 	<p>Rule 335-3-16-.07(e)</p>

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<p>(4) Whether compliance has been continuous or intermittent;</p> <p>(5) Such other facts as the Department may require to determine the compliance status of the source;</p> <p>(b) The compliance certification shall be submitted to:</p> <p style="padding-left: 40px;">Alabama Department of Environmental Management Air Division P.O. Box 301463 Montgomery, AL 36130-1463</p> <p style="text-align: center;">and to:</p> <p style="padding-left: 40px;">Air and EPCRA Enforcement Branch EPA Region IV 61 Forsyth Street, SW Atlanta, GA 30303</p>	
<p>13. <u>Reopening for Cause</u></p> <p>Under any of the following circumstances, this permit will be reopened prior to the expiration of the permit:</p> <p>(a) Additional applicable requirements under the Clean Air Act of 1990 become applicable to the permittee with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire.</p> <p>(b) Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into this permit.</p> <p>(c) The Department or EPA determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.</p> <p>(d) The Administrator or the Department determines that this permit must be revised or revoked to assure</p>	<p>Rule 335-3-16-.13(5)</p>

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<p style="text-align: center;">compliance with the applicable requirements.</p>	
<p>14. <u>Additional Rules and Regulations</u></p> <p>This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.</p>	<p>§22-28-16(d), Code of Alabama 1975, as amended</p>
<p>15. <u>Equipment Maintenance or Breakdown</u></p> <p>(a) In the case of shutdown of air pollution control equipment (which operates pursuant to any permit issued by the Director) for necessary scheduled maintenance, the intent to shut down such equipment shall be reported to the Director at least twenty-four (24) hours prior to the planned shutdown, unless such shutdown is accompanied by the shutdown of the source which such equipment is intended to control. Such prior notice shall include, but is not limited to the following:</p> <ol style="list-style-type: none"> (1) Identification of the specific facility to be taken out of service as well as its location and permit number; (2) The expected length of time that the air pollution control equipment will be out of service; (3) The nature and quantity of emissions of air contaminants likely to occur during the shutdown period; (4) Measures such as the use of off-shift labor and equipment that will be taken to minimize the length of the shutdown period; (5) The reasons that it would be impossible or impractical to shut down the source operation during the maintenance period. <p>(b) In the event that there is a breakdown of equipment or upset of process in such a manner as to cause, or is expected to cause, increased emissions of air contaminants which are above an applicable standard, the person responsible for such equipment shall notify the Director within 24 hours or the next working day and provide a statement giving all pertinent facts, including the estimated duration of the breakdown. The Director</p>	<p>Rule 335-3-1-.07(1), (2)</p>

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<p>shall be notified when the breakdown has been corrected.</p>	
<p>16. <u>Operation of Capture and Control Devices</u></p> <p>All air pollution control devices and capture systems for which this permit is issued shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be established.</p>	<p>§22-28-16(d), Code of Alabama 1975, as amended</p>
<p>17. <u>Obnoxious Odors</u></p> <p>This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.</p>	<p>Rule 335-3-1-.08</p>
<p>18. <u>Fugitive Dust</u></p> <p>(a) Precautions shall be taken to prevent fugitive dust emanating from plant roads, grounds, stockpiles, screens, dryers, hoppers, ductwork, etc.</p> <p>(b) Plant or haul roads and grounds will be maintained in the following manner so that dust will not become airborne. A minimum of one, or a combination, of the following methods shall be utilized to minimize airborne dust from plant or haul roads and grounds:</p> <ol style="list-style-type: none"> (1) By the application of water any time the surface of the road is sufficiently dry to allow the creation of dust emissions by the act of wind or vehicular traffic; (2) By reducing the speed of vehicular traffic to a point below that at which dust emissions are created; (3) By paving; (4) By the application of binders to the road surface at any time the road surface is found to allow the creation of dust emissions; 	<p>Rule 335-3-4-.02</p>

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<p>Should one, or a combination, of the above methods fail to adequately reduce airborne dust from plant or haul roads and grounds, alternative methods shall be employed, either exclusively or in combination with one or all of the above control techniques, so that dust will not become airborne. Alternative methods shall be approved by the Department prior to utilization.</p>	
<p>19. <u>Additions and Revisions</u></p>	
<p>Any modifications to this source shall comply with the modification procedures in Rules 335-3-16-.13 or 335-3-16-.14.</p>	<p>Rule 335-3-16-.13 and .14</p>
<p>20. <u>Recordkeeping Requirements</u></p>	
<p>(a) Records of required monitoring information of the source shall include the following:</p> <ul style="list-style-type: none"> (1) The date, place, and time of all sampling or measurements; (2) The date analyses were performed; (3) The company or entity that performed the analyses; (4) The analytical techniques or methods used; (5) The results of all analyses; and (6) The operating conditions that existed at the time of sampling or measurement. <p>(b) Retention of records of all required monitoring data and support information of the source for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation and copies of all reports required by the permit</p>	<p>Rule 335-3-16-.05(c)2</p>
<p>21. <u>Reporting Requirements</u></p>	
<p>(a) Reports to the Department of any required monitoring shall be submitted at least every 6 months. All instances of deviations from permit requirements must be clearly</p>	<p>Rule 335-3-16-.05(c)3</p>

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<p>identified in said reports. All required reports must be certified by a responsible official consistent with Rule 335-3-16-.04(9).</p> <p>(b) Deviations from permit requirements shall be reported within 48 hours or 2 working days of such deviations, including those attributable to upset conditions as defined in the permit. The report will include the probable cause of said deviations, and any corrective actions or preventive measures that were taken.</p>	
<p>22. <u>Emission Testing Requirements</u></p> <p>Each point of emission which requires testing will be provided with sampling ports, ladders, platforms, and other safety equipment to facilitate testing performed in accordance with procedures established by Part 60 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised.</p> <p>The Air Division must be notified in writing at least 10 days in advance of all emission tests to be conducted and submitted as proof of compliance with the Department's air pollution control rules and regulations.</p> <p>To avoid problems concerning testing methods and procedures, the following shall be included with the notification letter:</p> <ol style="list-style-type: none"> (1) The date the test crew is expected to arrive, the date and time anticipated of the start of the first run, how many and which sources are to be tested, and the names of the persons and/or testing company that will conduct the tests. (2) A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedures require probe cleaning). (3) A description of the process(es) to be tested including the feed rate, any operating parameters used to control or influence the operations, and the rated capacity. (4) A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances. 	<p>Rule 335-3-1-.05(3) and Rule 335-3-1-.04(1)</p> <p>Rule 335-3-1-.04</p>

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<p>A pretest meeting may be held at the request of the source owner or the Air Division. The necessity for such a meeting and the required attendees will be determined on a case-by-case basis.</p> <p>All test reports must be submitted to the Air Division within 30 days of the actual completion of the test unless an extension of time is specifically approved by the Air Division.</p>	<p>Rule 335-3-1-.04</p>
<p>23. <u>Payment of Emission Fees</u></p> <p>Annual emission fees shall be remitted each year according to the fee schedule in ADEM Admin. Code R. 335-1-7-.04.</p>	<p>Rule 335-1-7-.04</p>
<p>24. <u>Other Reporting and Testing Requirements</u></p> <p>Submission of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require emission testing at any time.</p>	<p>Rule 335-3-1-.04(1)</p>
<p>25. <u>Title VI Requirements (Refrigerants)</u></p> <p>Any facility having appliances or refrigeration equipment, including air conditioning equipment, which use Class I or Class II ozone-depleting substances as listed in 40 CFR Part 82, Subpart A, Appendices A and B, shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82, Subpart F.</p> <p>No person shall knowingly vent or otherwise release any Class I or Class II substance into the environment during the repair, servicing, maintenance, or disposal of any device except as provided in 40 CFR Part 82, Subpart F.</p> <p>The responsible official shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the US EPA and the Department as required.</p>	<p>40 CFR Part 82</p>
<p>26. <u>Chemical Accidental Prevention Provisions</u></p> <p>If a chemical listed in Table 1 of 40 CFR Part 68.130 is present in a process in quantities greater than the threshold quantity listed in Table 1, then:</p> <p>(a) The owner or operator shall comply with the provisions</p>	<p>40 CFR Part 68</p>

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<p>in 40 CFR Part 68.</p> <p>(b) The owner or operator shall submit one of the following:</p> <p>(1) A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR Part 68 § 68.10(a) or,</p> <p>(2) A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan.</p>	
<p>27. <u>Display of Permit</u></p> <p>This permit shall be kept under file or on display at all times at the site where the facility for which the permit is issued is located and will be made readily available for inspection by any or all persons who may request to see it.</p>	<p>Rule 335-3-14-.01(1)(d)</p>
<p>28. <u>Circumvention</u></p> <p>No person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes any emission of air contaminant which would otherwise violate the Division 3 rules and regulations.</p>	<p>Rule 335-3-1-.10</p>
<p>29. <u>Visible Emissions</u></p> <p>Unless otherwise specified in the Unit Specific provisos of this permit, any source of particulate emissions shall not discharge more than one 6-minute average opacity greater than 20% in any 60-minute period. At no time shall any source discharge a 6-minute average opacity of particulate emissions greater than 40%. Opacity will be determined by 40 CFR Part 60, Appendix A, Method 9, unless otherwise specified in the Unit Specific provisos of this permit.</p>	<p>Rule 335-3-4-.01(1)</p>
<p>30. <u>Fuel-Burning Equipment</u></p> <p>(a) Unless otherwise specified in the Unit Specific provisos of this permit, no fuel-burning equipment may discharge particulate emissions in excess of the emissions specified in Part 335-3-4-.03.</p> <p>(b) Unless otherwise specified in the Unit Specific provisos of this permit, no fuel-burning equipment may discharge</p>	<p>Rule 335-3-4-.03</p>

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<p>sulfur dioxide emissions in excess of the emissions specified in Part 335-3-5-.01.</p>	<p>Rule 335-3-5-.01</p>
<p>31. <u>Process Industries – General</u></p> <p>Unless otherwise specified in the Unit Specific provisos of this permit, no process may discharge particulate emissions in excess of the emissions specified in Part 335-3-4-.04.</p>	<p>Rule 335-3-4-.04</p>
<p>32. <u>Averaging Time for Emission Limits</u></p> <p>Unless otherwise specified in the permit, the averaging time for the emission limits listed in this permit shall be the nominal time required by the specific test method.</p>	<p>Rule 335-3-1-.05</p>
<p>33. <u>Compliance Assurance Monitoring (CAM)</u></p> <p>Conditions (a) through (d) that follow are general conditions applicable to emissions units that are subject to the CAM requirements. Specific requirements related to each emissions unit are contained in the unit specific provisos and the attached CAM appendices.</p> <p>(a) Operation of Approved Monitoring</p> <p>(1) <i>Commencement of operation.</i> The owner or operator shall conduct the monitoring required under this section and detailed in the unit specific provisos and CAM appendix of this permit (if required) upon issuance of the permit, or by such later date specified in the permit pursuant to §64.6(d).</p> <p>(2) <i>Proper maintenance.</i> At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.</p> <p>(3) <i>Continued operation.</i> Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring</p>	<p>40 CFR 64.7</p>

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<p>malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.</p> <p>(4) <i>Response to excursions or exceedances.</i> (a) Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable. (b) Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.</p> <p>(5) <i>Documentation of need for improved monitoring.</i> After approval of monitoring under this part, if the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for which the</p>	

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<p>approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the Department and, if necessary, submit a proposed modification to the permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.</p> <p>(b) Quality Improvement Plan (QIP) Requirements</p> <p>(1) Based on the results of a determination made under Section 33(a)(4)(b) above, the Administrator or the permitting authority may require the owner or operator to develop and implement a QIP. Consistent with 40 CFR §64.6(c)(3), the permit may specify an appropriate threshold, such as an accumulation of exceedances or excursions exceeding 5 percent duration of a pollutant-specific emissions unit's operating time for a reporting period, for requiring the implementation of a QIP. The threshold may be set at a higher or lower percent or may rely on other criteria for purposes of indicating whether a pollutant-specific emissions unit is being maintained and operated in a manner consistent with good air pollution control practices.</p> <p>(2) Elements of a QIP:</p> <p>A. The owner or operator shall maintain a written QIP, if required, and have it available for inspection.</p> <p>B. The plan initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the owner or operator shall modify the plan to include procedures for conducting one or more of the following actions, as appropriate:</p> <p>(i) Improved preventive maintenance practices.</p> <p>(ii) Process operation changes.</p>	<p>40 CFR 64.8</p>

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<ul style="list-style-type: none"> (iii) Appropriate improvements to control methods. (iv) Other steps appropriate to correct control performance. (v) More frequent or improved monitoring (only in conjunction with one or more steps under paragraphs (2)(b)(i) through (iv) above). <p>(3) If a QIP is required, the owner or operator shall develop and implement a QIP as expeditiously as practicable and shall notify the Department if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.</p> <p>(4) Following implementation of a QIP, upon any subsequent determination pursuant to Section 33(a)(4)(b) above, the Department may require that an owner or operator make reasonable changes to the QIP if the QIP is found to have:</p> <ul style="list-style-type: none"> A. Failed to address the cause of the control device performance problems; or B. Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. <p>(5) Implementation of a QIP shall not excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.</p>	
<p>(c) Reporting and Recordkeeping Requirements</p> <p>(1) General reporting requirements</p> <ul style="list-style-type: none"> A. On and after the date specified in Section 33(a)(1) above by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit monitoring reports to the permitting authority in accordance 	<p>40 CFR 64.9</p>

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<p>with ADEM Admin. Code R. 335-3-16-.05(c)3.</p> <p>B. A report for monitoring under this part shall include, at a minimum, the information required under ADEM Admin. Code R. 335-3-16-.05(c)3. and the following information, as applicable:</p> <ul style="list-style-type: none"> (i) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken; (ii) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and (iii) A description of the actions taken to implement a QIP during the reporting period as specified in Section 33(b) above. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring. <p>(2) General recordkeeping requirements.</p> <ul style="list-style-type: none"> A. The owner or operator shall comply with the recordkeeping requirements specified in ADEM Admin. Code R. 335-3-16-.05(c)2.. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to Section 33(b) above and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). B. Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, 	

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<p style="text-align: center;">and does not conflict with other applicable recordkeeping requirements.</p> <p>(d) Savings Provisions</p> <p>(1) Nothing in this part shall:</p> <p>A. Excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act. The requirements of this part shall not be used to justify the approval of monitoring less stringent than the monitoring which is required under separate legal authority and are not intended to establish minimum requirements for the purpose of determining the monitoring to be imposed under separate authority under the Act, including monitoring in permits issued pursuant to title I of the Act. The purpose of this part is to require, as part of the issuance of a permit under title V of the Act, improved or new monitoring at those emissions units where monitoring requirements do not exist or are inadequate to meet the requirements of this part.</p> <p>B. Restrict or abrogate the authority of the Department to impose additional or more stringent monitoring, recordkeeping, testing, or reporting requirements on any owner or operator of a source under any provision of the Act, including but not limited to sections 114(a)(1) and 504(b), or state law, as applicable.</p> <p>C. Restrict or abrogate the authority of the Department to take any enforcement action under the Act for any violation of an applicable requirement or of any person to take action under section 304 of the Act.</p>	<p>40 CFR 64.10</p>

Summary Page for Process Flare

Permitted Operating Schedule: 24 Hours/Day x 365 Days/Year = **8,760** Hours/Year

Emission Limitations:

Emission Point #	Description	Pollutant	Emission Limit	Regulation
	Process Flare	Opacity	No more than one 6 minute average >20% in any sixty minute period and No six minute average > 40%	Rule 335-3-4-.01(1)(a) Rule 335-3-4-.01(1)(b)
		H ₂ S	No venting to atmosphere 20 ppbv of H ₂ S offsite	Rule 335-3-5-.03(2) Rule 335-3-5-.03(2)
		SO ₂	240 Tons per 12 consecutive months	Rule 335-3-14-.04 (Anti-PSD)

Insignificant Activities

0.5 MMBtu/hr Line Heater
0.5 MMBtu/hr Heater Treater

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<p>Applicability</p> <ol style="list-style-type: none"> The process flare shall be subject to the applicable requirements of ADEM Admin. Code R. 335-3-4-.01, "<i>Visible Emissions</i>" for Control of Particulate Emissions. Each facility that handles gas or refinery gas that contains more than 0.10 grain of hydrogen sulfide (H₂S) per standard cubic foot (scf) shall be subject to the applicable requirements of ADEM Admin. Code R. 335-3-5-.03, "<i>Petroleum Production</i>". The facility has requested an emission limitation which will allow the process flare to be a synthetic minor source when determining applicability to ADEM Admin. Code R. 335-3-14-.04, "<i>Prevention of Significant Deterioration (PSD) Permitting</i>". The process flare shall be subject to the applicable requirements of ADEM Admin. Code R. 335-3-16-.03, "<i>Major Source Operating Permits</i>". The process flare shall be subject to the requirements of 40 CFR 64, "<i>Compliance Assurance Monitoring (CAM)</i>". 	<p>Rule 335-3-16-.03</p> <p>Rule 335-3-4-.01(1)(a) and (b)</p> <p>Rule 335-3-5-.03(1)</p> <p>Rule 335-3-14-.04</p> <p>Rule 335-3-16-.03</p> <p>40 CFR 64</p>
<p>Emission Standards</p> <ol style="list-style-type: none"> The process flare shall meet the opacity requirements specified in 1(a) and (b) of this section of this subpart. <ol style="list-style-type: none"> Except for one 6-minute period during any 60-consecutive minute period, the process flare shall not discharge into the atmosphere particulate that results in an opacity greater than 20%, as determined by a 6-minute average. At no time shall the process flare discharge into the atmosphere particulate that results in an opacity greater than 40%, as determined by a 6-minute average. All process gas streams containing 0.10 of a grain of hydrogen sulfide (H₂S) per standard cubic feet (Scf) shall be burned to the extent that the ground level concentrations of hydrogen sulfide shall be less than twenty (20) parts per billion volume (ppbv) beyond plant property limits, averaged over a thirty (30) minute period. Sulfur Dioxide (SO₂) emissions shall not exceed 240 Tons per twelve (12) consecutive months. 	<p>Rule 335-3-16-.05(a)</p> <p>Rule 335-3-16-.05(a)</p> <p>Rule 335-3-4-.01(1)(a)</p> <p>Rule 335-3-4-.01(1)(b)</p> <p>Rule 335-3-5-.03(2)</p> <p>Anti-PSD Regulations</p>

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Compliance and Performance Test Methods and Procedures	Rule 335-3-16-.05(c)(1)(i) Rule 335-3-1-.05
<ol style="list-style-type: none"> 1. Compliance with the opacity standards shall be met by conducting a daily visible emissions observation of the process flare, except when the production facility is unmanned by operation personnel or when a process stream is not being sent to the flare. 2. Compliance with the requirement to burn process gas containing 0.10 grains of H₂S/Scf shall be demonstrated by meeting the requirements specified in proviso 2(a) and (b) of this section of this subpart. <ol style="list-style-type: none"> (a) Each process gas stream that has to be vented to atmosphere shall be captured and sent to the process flare for combustion. <ol style="list-style-type: none"> (1) Compliance shall be demonstrated by conducting a process flow design evaluation of the production facility in conjunction with a visual inspection of the facility. (2) Except when vessels and equipment are being depressured and/or emptied and the reduced pressure will not allow flow of the gas to a control device, venting to the atmosphere of any process gas stream shall not exceed a duration of fifteen (15) continuous minutes. (b) Maintain the presence of a flame or spark at the flare tip at all times that a process gas stream can be sent to process flare for combustion. <ol style="list-style-type: none"> (1) Provided an exceedance and/or deviation occur, 40 CFR 64.7(d) shall be complied with. 3. Compliance with the requirement to meet the 20 ppb offsite H₂S concentration shall be demonstrated by maintaining the H₂S feedrate to the process flare at a value less than or equal to 500 pounds per hour (Lbs/Hour). 4. Each process gas stream that can be sent to the process flare shall be tested in accordance with the requirements specified in proviso 4(a), (b) and (c). <ol style="list-style-type: none"> (a) The hydrogen sulfide content of each process gas stream shall be determined as follows: <ol style="list-style-type: none"> (1) Testing shall consist of capturing one representative sample of the stream at a frequency of no less than once 	40 CFR 64.7(d)(2)

Provisos for Process Flare

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<p>each month.</p> <p>(2) The sample collected shall be analyzed utilizing one of the following methods:</p> <ul style="list-style-type: none"> (i) Tutwiler procedures found in 40 CFR 60.648 (ii) Chromatographic analysis procedures found in ASTM E-260 (iii) Stain tube procedures found in GPA 2377-86 or those provided by the stain tube manufacturer (iv) Other methods approved by the Department 	<p>[Stream (H₂S Mole %)]</p>
<p>(b) The volatile organic compound weight percent, Btu content, and the molecular weight of each process gas stream shall be determined in accordance with the following requirements:</p> <p>(1) A representative sample of the stream shall be captured and analyzed at a frequency of no less than once each twelve (12) months.</p> <p>(2) The sample collected shall be analyzed utilizing one of the following methods:</p> <ul style="list-style-type: none"> (i) ASTM Analysis Method D1826-77 (ii) Chromatographic analysis procedures found in 40 CFR Part 60 Appendix A, Method 18 (iii) Other methods approved by the Department 	<p>[Stream (Mol Wt)] [Stream (VOC Wt%)] [Stream (Btu/scf)]</p>
<p>(c) Provided multiple process streams can be sent to the flare and it is possible to capture a common stream whose contents would be representative of all the streams, that common stream may be used instead of the individual process streams.</p>	
<p>(d) The frequency of testing may be modified upon Departmental approval.</p>	

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<p>Emission Monitoring</p> <ol style="list-style-type: none"> 1. Compliance Assurance Monitoring (CAM) and Periodic Monitoring for the process flare shall be met by complying with the requirements specified in <i>Appendix A, "Process Flare Monitoring"</i>. 2. Opacity Monitoring shall be met by complying with the requirements specified in <i>Appendix B, "Opacity Monitoring for Process Flare"</i>. 3. Periodic Monitoring is also met for the process flare by maintaining records as specified in the <i>recordkeeping and reporting</i> section of this subpart. 	<p>Rule 335-3-16-.05(c)(1) Rule 335-3-1-.04</p> <p>40 CFR §64.6(b) & (c)</p>
<p>Recordkeeping and Reporting Requirements</p> <ol style="list-style-type: none"> 1. The following monthly records shall be maintained: <ol style="list-style-type: none"> (a) Volume of Gas Burned in Flare <div style="text-align: right;">[Stream Volume Burned (Mscf/Month)]</div> (b) Stream (MMBtu/Month)= <div style="text-align: right;">[Stream Volume Burned (Mscf/Month)] X [1000 scf/1 Mscf] X [Stream (Btu/scf)] X [1MMBtu/10⁶ Btu]</div> (c) Stream H₂S (Lbs/Month)= <div style="text-align: right;">[Stream Volume Burned (Mscf/Month)] X [(Stream H₂S Content (mol %)) / 100] X [(1 lb-mol/0.380 Mscf)] X [(34 Lbs H₂S/Lb-mol)]</div> (d) Flare H₂S Feedrate (Lbs/Month)= <div style="text-align: right;">Σ of Streams H₂S (Lbs/Month)</div> (e) Number of Hours Flare Operated <div style="text-align: right;">[Op Hours (Hours/Month)]</div> 	<p>Rule 335-3-16-.05(c)(2) Rule 335-3-1-.04 40 CFR §64.9</p>

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<p>(f) H₂S Feedrate to the Flare (Lbs/Hour)=</p> $\frac{[\text{Flare H}_2\text{S (Lbs/Month)}]}{[\text{Op Hours (Hours/Month)}]}$ <p>(g) Flare SO₂ Emissions (Lbs/Month)=</p> $\text{Flare H}_2\text{S Feedrate (Lbs/Month)} \times 0.02^* \times \frac{[(64 \text{ Lbs SO}_2\text{/Lb-mol)}]}{[(34 \text{ Lbs H}_2\text{S/Lb-mol)}]}$ <p><i>*assuming 98% destruction by the flare</i></p> <p>(h) Stream VOC Emissions (Lbs/Month)=</p> $[\text{Stream Volume Burned (MScf/Month)}] \times [1000 \text{ Scf/MScf}] \times [1 \text{ lb-mole}/380 \text{ SCF}] \times [\{\text{Stream (VOC Wt \%)}\}/\{100\}] \times [\text{Stream (Mole Wt)}] \times [1 - 0.98]$ <p>(i) Flare Heat Input (MMBtu/Month)=</p> $\Sigma \text{ of Stream (MMBtu/Month)}$ <p>(j) Flare VOC Emissions (Lbs/Month)=</p> $\Sigma \text{ of Stream VOC Emissions (Lbs/Month)}$ <p>(k) Flare CO Emissions (Lbs/Month)=</p> $[\text{Flare Heat Input (MMBtu/Month)}] \times [(0.37 \text{ Lbs CO/MMBtu})]$ <p>(l) Flare NO_x Emissions (Lbs/Month)=</p> $[\text{Flare Heat Input (MMBtu/Month)}] \times [(0.068 \text{ Lbs. NO}_x\text{/MMBtu})]$ <p>(m) CO, NO_x, SO₂ and VOC Emissions (Tons/Month) shall be calculated using the following equation:</p> <p>Flare Emissions (Tons/Month)=</p> $\frac{\text{Flare Emissions (Lbs/Month)}}{[2000 \text{ Lbs}/1 \text{ Ton}]}$	

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<p>(n) CO, NO_x, SO₂ and VOC Emissions (Tons/12 consecutive months) shall be determined using the following equation:</p> <p>Flare Emissions (Tons/Twelve Consecutive Months) =</p> $\frac{\sum \text{of Previous 11 month's Flare Emissions (Tons/Month)} + \text{Current month's Flare Emissions (Tons/Month)}}{12}$ <p>(o) Provided that visible emissions are being emitted from the process flare, a record of each visible emissions observation shall be maintained.</p> <p>(p) A record of the date, starting times, and duration of each deviation or exceedence of the emission standards along with an explanation of the cause and corrective actions taken shall be maintained.</p> <p>2. A Periodic Monitoring Report meeting the requirements specified in provisos 2(a) through (c) of this section of this subpart shall be submitted to the Department.</p> <p>(a) A deviation shall consist of any period of time during which the following occurs:</p> <ol style="list-style-type: none"> (1) Opacity exceeded 20% for more than one 6 minute averaging period during any 60 minute period. (2) Opacity exceeded 40% over a 6 minute averaging period. (3) Failed to conducted daily visible emissions observations of the flare, except during the times allowed. (4) Failed to maintain the presence of a spark or flame at the flare tip at all times that a process gas stream can be sent to the process flare. (5) Failed to maintain the facility-wide emissions at less than 240 Tons/12 consecutive months. (6) Failed to maintain the H₂S feedrate to the process flare at less than or equal to 500 Lbs/Hour . (7) Failed to burn the process stream to the process flare prior to being released to atmosphere. 	

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<p>(8) Failed to maintain the duration of venting to atmosphere to less than or equal to 15 consecutive minutes.</p> <p>(9) Air quality modeling study indicated that the offsite H₂S concentrations averaged over a 30 minute period exceeded 20 ppbv.</p> <p>(10) Failed to perform monitoring, testing, and recordkeeping and reporting as required by these sections of this subpart.</p> <p>(b) Except as provided for in proviso 2(d) of this section, the report shall include the requirements specified in proviso 2(b)(1) through (11) for each deviation event.</p> <p>(1) Emission source description</p> <p>(2) Permit requirement</p> <p>(3) Date</p> <p>(4) Starting time</p> <p>(5) Duration</p> <p>(6) Actual quantity</p> <p>(7) Cause</p> <p>(8) Action taken to return to compliance</p> <p>(9) Total operating hours of the affected source during the reporting period</p> <p>(10) Total hours of deviation events during the reporting period</p> <p>(11) Total hours of deviation events that occurred during start ups, shut downs, and malfunctions during the reporting period</p> <p>(c) The periodic monitoring report shall cover a calendar semi-annual period and shall be submitted to the Department on the following reporting schedule:</p> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Reporting Period</u></td><td style="text-align: center;"><u>Submittal Date</u></td></tr> <tr> <td style="text-align: center;"><i>January 1st through June 31st</i></td><td style="text-align: center;"><i>July 31st</i></td></tr> <tr> <td style="text-align: center;"><i>July 1st through December 31st</i></td><td style="text-align: center;"><i>January 31st</i></td></tr> </table>	<u>Reporting Period</u>	<u>Submittal Date</u>	<i>January 1st through June 31st</i>	<i>July 31st</i>	<i>July 1st through December 31st</i>	<i>January 31st</i>	
<u>Reporting Period</u>	<u>Submittal Date</u>						
<i>January 1st through June 31st</i>	<i>July 31st</i>						
<i>July 1st through December 31st</i>	<i>January 31st</i>						

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(d) The contents of the reports may be modified upon receipt of Departmental approval.	
3. Each deviation including those that occur during start ups, shut downs, and malfunctions shall be report to the Department in a manor that complies with proviso 15(b) and 21(b) of the general proviso subpart of this permit and §71.6(a)(3)(iii)(B) of 40 CFR Part 71.	Rule 335-3-16-.05(c)(3)(ii) §71.6(a)(3)(iii)(B)

APPENDIX A

Process Flare Monitoring

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Process Flare Monitoring

Monitoring approach:	Periodic Monitoring	Compliance Assurance Monitoring
I. Indicator	H₂S feed rate	Operate process flare with a flame or spark present at all times when a process gas stream may be sent to it.
A. <i>Measurement approach</i>	Inlet feed volume shall be monitored with a system capable of measuring and recording the flow rate and/or the parameters utilized for flow rate calculation or estimated utilizing material balances, computer simulations, special testing and etc	The flare tip shall be equipped either with a continuous sparking flame igniter that is monitored by an amp meter or an equivalent device or by daily visual inspections of the flare OR Equipped with a continuously burning pilot light that is monitored with either a thermocouple or an equivalent device or by visual inspection
II. Indicator range	H₂S feed rate of less than or equal to 500 Lbs/Hr	Presence of a flame or spark at flare tip
	A deviation is defined as anytime the daily H ₂ S feed rate is greater than 500 Lbs/Hr	A deviation is defined as when there was no spark or flame present at the flare tip when a process gas stream could be vented to it
	A deviation triggers an immediate inspection, corrective action, and reporting within 48 hours or two work days	A deviation triggers an immediate inspection, corrective action, and reporting within 48 hours or two work days
A. <i>QIP threshold</i>	Not applicable	If more than 6 deviations occur during any semi-annual reporting period, a Quality Improvement Plan (QIP) shall be developed and implemented
III. Performance criteria		
A. <i>Data representiveness</i>	Each volume monitor shall be located upstream of the process flare and shall consist of a single device that monitors all streams or multiple devices that monitor individual or multiple stream. The volume sensor shall be accurate to within 2% of span or 5% of design flow rate The sample point for H ₂ S content shall be located downstream of where the various gas processing streams combine prior to entry into the process flare and thermal oxidizer	Each flame igniter or flame monitor shall be located at the flare tip and focused on the area where gas exits the flare tip Visual inspections shall be made from the location that provides the best view of the flare tip and/or flare pilot lights or flare igniter
B. <i>Verification of operational status</i>	Not applicable	Not applicable
C. <i>QA/QC practices & criteria</i>	Each volume monitor shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide adequate assurance that the device is calibrated accurately, or at least annually whichever is more frequent	Each flame igniter or flame monitor shall be maintained and calibrated in accordance with the manufacturer's specifications, other written procedures that provide adequate assurance that the device is properly maintained and calibrated accurately, or at least annually whichever is more frequent

Process Flare Monitoring

Monitoring approach:	Periodic Monitoring	Compliance Assurance Monitoring
	<p>If the monitor fails its calibration tests, the monitor shall be taken out of service until repairs and/or replacements are made and a new calibration test is undertaken and passed</p>	<p>Repairs and/or replacements shall be made immediately when non-functioning or damaged parts are found</p>
<i>D. Monitoring frequency</i>	<p>Inlet volume measured continuously</p>	<p>Flame igniter arc length shall not exceed 10% of arc interval and shall have an arcing frequency of no greater than once every 3 seconds</p> <p>Pilot flame shall be monitored either continuously with a thermocouple or by performing a visual inspection of the flare when process gas is being sent to it for combustion</p> <p>Flame igniter - arcing frequency shall be monitored either continuously with an amp meter or by performing a visual inspection of the flare when process gas is being sent to it for combustion</p>
<i>Data collection procedure</i>	<p>Calculate &/or record an inlet volume that is representative of the average daily volume entering the process flare</p> <p>Record daily hours of operation for the process flare</p> <p>Record each H₂S concentration analysis</p> <p>Calculate & record H₂S and SO₂ emissions monthly</p> <p>Record calibration results</p> <p>Record inspection results, corrective and actions taken</p>	<p>Record time, date and duration of each incident of when no spark or flame was present at the flare tip when a process gas stream could have been sent to it</p> <p>Record time, date and results of each daily visual inspection</p> <p>Record time, date and results of each calibration</p> <p>Record time, date and results of each inspection and corrective actions taken</p>
<i>Averaging period</i>	<p>24 hour</p>	<p>Daily</p>

APPENDIX B

Opacity Monitoring for Process Flare

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Opacity Monitoring for Process flare

Monitoring approach:	Periodic Monitoring
I. Indicator	Opacity Monitoring for Process Flare
A. Measurement approach	<p>Except during times that the production facility is unmanned by operation personnel or when a process stream is not being sent to the flare, a daily visible emissions observation (veo) shall be conducted on the process flare that meets the following requirements:</p> <p style="text-align: center;">Observations shall be conducted during daylight hours</p> <p style="text-align: center;">Duration of each observation shall be:</p> <p style="text-align: center;">>= 15 minutes and <= 60 minutes</p> <p style="text-align: center;">Each observation shall be conducted in accordance with either:</p> <p style="text-align: center;">Test Method 9 of 40 CFR Part 60</p> <p style="text-align: center;">or</p> <p style="text-align: center;">Test Method 22 of 40 CFR Part 60</p> <p>Provided that Test Method 9 is used, the method shall be administered by an individual certified in using that method.</p>
II. Indicator range	<p>No more than one 6-min. average opacity reading during any 60 minute period shall exceed 20%.</p> <p>Or</p> <p>No 6-min. average opacity reading shall exceed 40%.</p> <p>Or</p> <p>The accumulated time of observed visible emissions shall not exceed 12 minutes.</p> <p>A deviation is defined as anytime the observed 6-minute average opacity exceeds 20% for the 2nd time when utilizing Method 9.</p> <p>A deviation is defined as anytime the observed 6-minute average opacity exceeds 40% for the 1st time when utilizing Method 9.</p> <p>A deviation is defined as anytime visible emissions are observed for greater than 12 minutes during a 60 minute period when utilizing Method 22.</p> <p>A deviation or exceedance triggers continued visible emissions observations at a frequency suitable to defining the emission deviation or exceedance event. One observation shall be undertaken to establish the end of the visible emission deviation event.</p> <p>A deviation or exceedance triggers an inspection, corrective action, and immediate reporting within 48 hours or two work days.</p>
III. Performance criteria	
A. Monitoring frequency	Daily
Data collection procedure	<p>Record: Each occurrence of visible emission observations, or as set by the Department</p> <p>Each 15 second observation reading</p> <p>Record: Each occurrence</p> <p>Time and date of each veo and results of corrective actions, if taken</p>
Averaging period	Not applicable